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Cornhusker Economics

Cooperative Extension

Institute of Agriculture & Natural Resources
Department of Agricultural Economics
University of Nebraska – Lincoln

Changing Technology and Share Leases Some Observations

Market Report	Yr Ago	4 Wks Ago	4/3/98
<u>Livestock and Products,</u>			
<u>Average Prices for Week Ending</u>			
Slaughter Steers, Ch. 204, 1100-1300 lb Omaha, cwt.	\$67.75	\$60.13	\$59.75
Feeder Steers, Med. Frame, 600-650 lb Dodge City, KS, cwt.	74.59	83.58	83.48
Carcass Price, Ch. 1-3, 550-700 lb Cent. US, Equiv. Index Value, cwt.	97.41	88.58	88.81
Hogs, US 1-2, 220-230 lb Omaha, cwt.	52.23	33.05	35.10
Feeder Pigs, US 1-2, 40-45 lb Omaha, hd.	*	*	*
Vacuum Packed Pork Loins, Wholesale, 13-19 lb, 1/4" Trim, Cent. US, cwt.	115.80	103.80	98.55
Slaughter Lambs, Ch. & Pr., 115-125 lb Sioux Falls, SD, cwt.	98.00	70.65	70.63
Carcass Lambs, Ch. & Pr., 1-4, 55-65 lb FOB Midwest, cwt.	183.00	144.50	144.50
<u>Crops,</u>			
<u>Cash Truck Prices for Date Shown</u>			
Wheat, No. 1, H.W. Omaha, bu.	4.12	3.57	3.43
Corn, No. 2, Yellow Omaha, bu.	2.71	2.56	2.40
Soybeans, No. 1, Yellow Chicago, bu.	8.37	6.63	6.41
Grain Sorghum, No. 2, Yellow Kansas City, cwt.	4.73	4.43	4.15
Oats, No. 2, Heavy Omaha, bu.	*	*	*
<u>Hay,</u>			
<u>First Day of Week Pile Prices</u>			
Alfalfa, Sm. Square, RFV 150 or better Platte Valley, ton.	135.00	*	*
Alfalfa, Lg. Round, Good Northeast Nebraska, ton.	80.00	72.50	65.00
Prairie, Sm. Square, Good Northeast Nebraska, ton.	72.50	87.50	77.50
* No market.			

The most popular method of leasing cropland in Nebraska is the share lease. Under this arrangement, the tenant and landowner both contribute to the production of a crop, which they share and market. The landowner's contribution may be only the land, or he/she may also pay a share of the crop production expenses.

The "Returns Based on Contributions Approach" has typically been used to develop or test the equity of share rental arrangements. When using this approach, each input is quantified in terms of dollars. The contributions of each party are totaled and the percentages contributed by each are calculated. This is the basis for the typical crop shares of 50-50, 60-40, etc.

No-Till or Reduced Tillage

Changes in technology employed in crop production can affect the equity of share leases. An example is the use of herbicides to control weeds. Before there were herbicides, it was the tenant's responsibility to control weeds by cultivation. When herbicides were applied primarily as a band over the row, landowners began paying a share of the herbicide cost, since they benefitted from higher yields, due to better within row weed control. But what about no-till, where all of the weed control is done with herbicides?

The argument for adjusting share leases goes something like this — The tenant's machinery operating costs should be less, due to fewer field operations and lower horsepower requirements. The tenant's machinery ownership costs should be less, because fewer machines are required and tractors can be smaller because no primary tillage operations are



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necessary. As a result, the tenant's contribution is smaller. To resolve this situation, the crop share could be adjusted, or the tenant could pay a larger share of the herbicide expense, to bring the contributions back to 50-50 or 60-40.

In practice, the changes in share leases have been a mixed bag. In many cases, landowners have made no change in their share leases. They feel that there are long run benefits from reduced soil compaction and other attributes of no-till farming. They feel the productivity of their land will increase over time and this will increase the value of their investment. In some cases no-till has enabled them to continue producing higher value row crops while maintaining conservation compliance. Others have said they will not share in the cost of the "burn down" herbicide prior to planting, as they see this as a substitute for one or more primary tillage operations. But, they will pay a share of the remaining herbicide applications. Others have stated a maximum dollar amount of herbicide expense that they will pay. In a few instances, crop shares have been adjusted. Generally, the landowner will not pay a share of the cost of applying chemicals if they are custom applied.

From the tenant's standpoint, many feel that their machinery costs have not been reduced. The cost of specialized no-till equipment, such as no-till soybean drills, is higher than for conventional equipment. Some also feel that repair costs are higher, and the useable life of machines may be shorter under no-till. Regarding machine ownership costs, very few farmers have a farm sale and then invest in no-till equipment. Most tenants lease from several landowners, some of which may not want no-till used on their farm. Thus, the tenant must maintain his/her conventional equipment as well as the no-till machines. The primary benefit to tenants may be that no-till allows them to farm more land.

Summing up, share leases are slow to change. Generally, landowners are hesitant to renegotiate leases, and many are not sure of the long run benefits and costs of reduced tillage. It may be best for individuals to evaluate their unique situation. A computer program, "FairRent," available at the Center for Farm Financial Management at the University of Minnesota, facilitates the "Returns Based on Contributions" calculations. (800-234-1111).

Yield Monitors, Global Positioning Systems, Etc.

Two issues relating to these technologies are who pays for data collection and who owns the data. Precision farming technologies are new and are probably in the innovator stage of the adoption process. Most producers that are gathering data with yield monitors or creating yield maps realize that several years of data are

required before making decisions based on the data. Thus, not many management decisions are being based on the data at this point, and as a result, the data is not perceived as having much value.

Tenants are paying the cost of collecting the data, and most are willing to share it with their landowners. This may change in the future as the data becomes more valuable. Some landowners are currently including a clause in their lease, stating that they will have access to any data gathered on their land. Most landowners have not addressed this issue. At this point "access" has not been defined — whether the data is in the form of a piece of paper or a computer disk.

There was some discussion in an Internet chat room recently about custom rates for gathering data. That is, if the charge for custom combining is \$20 per acre, one might charge \$22 if a yield map were created. The rates suggested by farmers in the chat room ranged from 45 cents to \$5 per acre.

Genetically Altered Seeds

The seed cost and insecticide cost are typically shared in 50-50 leases, so the costs and benefits of Bt corn are shared by the landowner and tenant. But, in 60-40 leases the tenant typically pays for the seed. If a tenant buys Bt seed corn, which has an added cost in the form of a technology fee of \$30 per bag, and this results in lower insecticide cost, which the landowner typically shares in, the relative contributions of each party have changed. Solutions proposed include shifting to a 50-50 lease, or having the landowner pay a share of the technology fee.

Seed which is tied to a herbicide program, such as Roundup-ready soybeans or corn, require the adoption of a package of technology. Often the adoption decision involves many variables, involving the seed, herbicide and tillage system. The producer may select a corn variety that tolerates a specific herbicide, is resistant to a specific insect and performs well under no-till conditions. Such decisions require good communication and knowledge for both the tenant and the landowner under a share lease arrangement. However, the comprehensive nature of the decision to adopt these technologies is causing some landowners to switch from share to cash rental arrangements.

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